To find out how you can join the JITC IP partnership please contact any of the people listed below.

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Increasing Combat Effectiveness Through Interoperability

ADVANCED INTERNET PROTOCOL TECHNOLOGY LAB

Joint Interoperability Test Command

INTRODUCTION

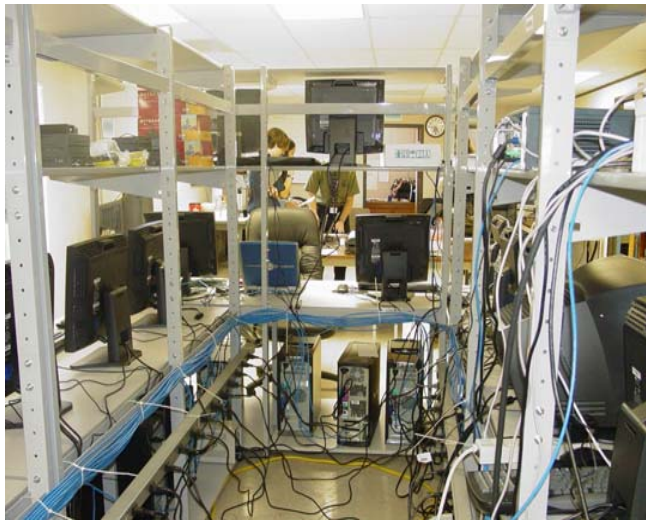
The purpose of the Joint Interoperability Test Command (JITC) Advanced Internet Protocol (IP) Technology Laboratory is to assist the Department of Defense (DOD) successfully migrate to IPv6 while maintaining existing IPv4 interoperability. DOD has tasked the Defense Information Systems Agency (DISA), JITC's parent command, to ensure that DOD IPv6 fielding is coordinated, does not duplicate efforts within DOD and does not introduce interoperability and information assurance risks. DISA will acquire, manage, allocate, and control necessary IPv6 address space for the DOD. DISA and the Joint Staff, with participation of DOD components and Services, is developing a transition plan leading to full IPv6 implementation by FY 08.

As DOD's sole interoperability certification authority, JITC tests all DOD information technology and national security systems for interoperability. Since it has the capability to replicate most strategic and tactical joint architectures, JITC, as the certification arm of the DOD, established the Advanced IP Technology Laboratory.

In the laboratory, Program Managers, acquisition agents and vendors are provided a matrix of equipment and operating systems to conduct IP research, development, testing and evaluation in both US-only and coalition architectures. Access to the laboratory has encouraged vendors to incorporate interoperability in the transition from IPv4 to IPv6 involving general military applications.

North American IPv6 TASK FORCE

moonv6



Key features of IPv6 are:

- **Larger IP address space**
- **Autoconfiguration**
- **Security**
- **Friendly to traffic engineering technologies**
- **Multicast**
- **Better support for ad-hoc networking**
- **Cures routing table growth**
- **Simplified header structures**
- **Allows flexible protocol extensions**
- **Smooth transition by following key IPv4 design principles**

Additionally, JITC is conducting research and testing in these other IP areas:

- **IP modems, to include satellite modems**
- **IP accelerators (product compliance & interoperability)**
- **IP end-to-end solutions**
- **Everything over IP (EOIP)**
- **Secure IP products (for interoperability)**

JITC, as the planner and director of the DOD Interoperability Communications Exercise (DICE) and a participant in the MOONv6, and North American IPv6 Task Force efforts, provides a venue to access all Services within DOD, Combatant Commands, including US Northern Command in their Homeland Defense role as well as commercial developers and academia. This venue continues to help refine and validate requirements and reinforce interoperability as the guiding principle around evolving Joint Technical Architecture Requests For Comments.

Here is a sampling of the vendors that have had products/applications evaluated in JITC's Advanced IP Technology Laboratory:

•Agilent •Alcatel •Cisco •Elmic •EMC
•Extreme •Foundry •Fujitsu •Hexago
•Hitachi •IP Infusion •Juniper •Microsoft
*•NEC •*Nokia •Procket •Spirent •SUN*
•Ixia •HP •NextHop •Windriver •6Wind

DOD Program Managers and vendors may easily participate in JITC's IP research and testing in a number of ways. They may participate in the MOONv6 test events, JITCs Department of Defense Interoperability Communications Exercise and other DOD/JITC exercises. Vendors may establish Cooperative Research and Development Agreements (CRADAs) with JITC, thus reducing the cost of testing.